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ABSTRACT

Because an educated workforce is recognized as essential to ensuring competitiveness in a global economy, it is considered an issue of national concern how teens in the United States are faring educationally, especially compared with teens worldwide. This research brief summarizes the key findings from a larger review of more than 300 research studies on educational adjustment, educational achievement, and educational attainment. The brief first considers factors such as parental involvement and teens' participation in extracurricular activities that can influence educational adjustment, achievement, and attainment from the vantage point of adolescents themselves as well as within the contexts of their families, peers, school, and community. The brief then describes programs that have been found successful in enhancing teens' educational success, including high-quality early childhood programs, mentoring programs, and programs aimed at boosting academic outcomes. Suggestions for improving such programs are provided. A "What Works" summary table details some of the programs and approaches most likely to succeed in enhancing youth's academic progress. Although focusing primarily on programs that have been experimentally evaluated, the brief also includes some promising practices drawing on non-experimental and quasi-experimental evaluations as well as practitioners' wisdom. (Contains 83 references.) (Author/KB)

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Educating America's Youth: What Makes a Difference. Child Trends Research Brief.

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Child Trends, Inc.

August 2002

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AMERICAN TEENS
A special look at "what works" in youth development in partnership with
John S. and James L. Knight Foundation

Educating America's Youth: What Makes a Difference

By Zakia Redd, M.P.P., Jennifer Brooks, Ph.D., and Ayelish M. McGarvey

August 2002

Overview Americans consider the importance of education a given – both in terms of the development of individuals and the growth of the nation. For individuals, education traditionally has been regarded as a door to enlarged opportunities. For the nation, an educated workforce has come to be recognized as essential to ensuring competitiveness in a global economy. It's not surprising, then, that how teens in the U.S. are doing educationally, especially compared with teens worldwide, has long been an issue of national concern.[65]

Research reinforces the common perceptions that young people who do well in school are more likely to graduate from high school and college, and that teens' academic performance and educational attainment are related to how they will do economically later in life.[21, 41, 60] *But what kinds of factors help determine teens' academic success? In an effort to understand what makes a difference in educating American youth, Child Trends conducted a review of more than 300 research studies on educational adjustment (how youth adapt in school), educational achievement (how well youth do in school), and educational attainment (how far youth go in school). This brief summarizes key findings from that larger review.**

We first consider factors that can influence educational adjustment, achievement, and attainment from the vantage point of adolescents themselves as well as within the contexts of their families, peers, school, and community. For example, research suggests that parental involvement and expectations enhance academic achievement and educational attainment, as does teens' participation in extracurricular activities. Similarly, research indicates that discouraging teens from engaging in risky behaviors and activities, and from working long hours during the school year, may improve their academic prospects.

We then touch on programs that have been found to be successful in enhancing teens' educational success. For example, our review found that high-quality early childhood programs, mentoring programs, and programs aimed at boosting academic outcomes can positively influence a number of factors related to teens' social and psychological adjustment to school, as well as their achievement in school and their likelihood of completing high school and pursuing higher education. We also found that youth development programs can increase teens' academic achievement in secondary school and their likelihood of going on to college, but the effectiveness of these programs varies. In rounding out this section of the brief, we offer some thoughts on how programs targeted at adolescents' educational progress can be improved to be more effective.

The What Works *table on page 5 details some of the programs and approaches that are most likely to succeed in enhancing the academic progress of youth. Only experimentally evaluated programs are included in the review of "what works." Also included in the table are some "best bets," promising practices drawing on non-experimental and quasi-experimental evaluations, other research, and the wisdom from practitioners*

This is the fourth in a series of *Research Briefs* based on a comprehensive review of adolescent development research. The *American Teens* series covers reproductive health, physical health and safety, social skills, education, mental and emotional health, and civic engagement as they relate to adolescents.

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The Adolescent

Research studies indicate that a number of different factors in teens' lives are related to how they do in school. Adolescents' earlier academic performance plays a role in both their adjustment to school and their school performance. Teens with higher levels of prior achievement report a more positive academic self-concept, on average, than teens with lower levels of prior achievement. That is, teens who have been successful in school in earlier grades show positive beliefs about their academic skills; more motivation to achieve and be engaged in school; and higher educational aspirations and expectations.[53, 50, 56, 18, 8, 27] Furthermore, young people's prior achievement and early levels of ability, as seen in IQ and achievement test scores, are often the strongest predictors of achievement and attainment in school.[11, 1, 79, 83]

On average, race and ethnicity also seem to play a role in school achievement, as measured by test scores, although a complicated one. Specifically, black and Latino teens have lower average levels of achievement than white and Asian adolescents.[23, 30, 56] Indicators also show that whites are more likely to graduate from high school than blacks and Hispanics. However, after taking background differences (such as family income and parental education) into account, black and Hispanic teens are, in fact, more likely to graduate from high school and to attend college than their white counterparts.[36, 55, 83] This finding suggests that race and ethnicity per se are less important influences on educational attainment than socioeconomic background and other factors.

A complex pattern is also found with gender. While girls have higher grades, on average, than boys and do better on tests of verbal and reading performance,[17, 77] some studies find that they do worse than boys, on average, on math and science tests,[40] while others do not.[30] For example, recent national assessments showed that the math gap between boys and girls is nearly closed.[14] Some studies have also found that girls, particularly among African Americans, are more likely to graduate from high school and go to college than boys.[36, 44, 83] Research also suggests that boys and girls may be motivated in different ways, with girls generally showing more adaptive forms of achievement motivation than boys.[4, 74] For example, girls are more likely to be motivated by *in*trinsic goals (such as an interest in learning information) than *extrinsic* goals (such as an interest in getting higher grades).[4, 74]

Teenagers' concepts of themselves and their place at school also seem to influence how well or how poorly they do in school. Students who have a high academic self-concept tend to be more motivated to achieve, more engaged in school, and more hopeful about their prospects for future education.[35, 61] Similarly, teens who feel connected to their school are more likely to be motivated to achieve and to have higher educational expectations and aspirations than teens who lack that sense of belonging.[8] Additionally, antisocial teens are more likely to drop out of high school, on average, than teens who are better adjusted.[24]

Adolescents' experiences outside school, including the choices they make about what they do in their leisure time, also appear to be important. Teens who work extensive hours (usually defined as 20 hours or more a week), tend to have lower general academic self-concept, levels of engagement in school, educational expectations and aspirations,[48, 59] academic achievement, and educational attainment.[55, 66, 78, 19, 16] Conversely, teens who take part in extracurricular activities tend to have higher levels of achievement and educational attainment.[47, 55, 20, 83] Teens who are involved (especially at an early age) in risky health behaviors, such as using drugs, getting involved in delinquent activities, having sex, getting pregnant, or becoming a parent are less likely to graduate from high school.[58, 24, 11, 42, 68]

The Adolescent's Family

Families can play a strong role in how adolescents adjust to school, with parental involvement a highly consistent predictor of teens' success in school. Adolescents whose parents are more involved with their schooling are more likely to be motivated to achieve in school, to be engaged in school, and have higher educational expectations.[18, 56, 82] Teens whose parents are more involved in their schooling also do better academically and go on to higher levels of education[31, 55, 83] than their peers whose parents are not involved.

Socioeconomic status is an important factor in adolescents' adjustment to and performance in school. Teens who live in more affluent families have higher educational aspirations and expectations, are more engaged in school,[8, 27] do better

academically, and are more likely to continue their schooling[17, 30, 55, 36] than their less-well-off peers.

Similarly, teens who live with both biological parents tend to be more engaged in school, have higher educational aspirations and expectations,[54, 27, 56] do better in school, and are more likely to graduate from high school and continue their education[17, 54] than teens in single-parent or step-parent families.

Parenting approach and family size also may affect teens' school experiences. Adolescents whose parents are supportive yet provide rules and consequences tend to be more engaged in school and have higher educational expectations than teens whose parents are permissive or neglectful.[25] And teens who live in larger families tend to have lower levels of achievement and lower levels of high school graduation, on average, than those from smaller families.[30, 36, 63, 83]

The Role of Peers

Not surprisingly, teens' friends also seem to influence their educational success, although few rigorous studies address this issue. Also, because teenagers select friends with similar interests and goals, it is difficult to make any causal conclusions about the influence their friends have on them.

Adolescents whose peers have or are perceived to have higher educational aspirations tend to have more positive academic self-concepts themselves, to be more engaged in school, and to have higher hopes for their continuing education than teens whose peers have low educational aspirations.[61] Similarly, teens whose friends are more motivated to succeed educationally are more likely to be motivated to achieve themselves.[74]

Friends may also influence teens' achievement and attainment. Adolescents who spend a lot of time with friends have lower achievement levels, on average, than teens who spend less time "hanging out" with peers.[40] And teens whose peers have higher dropout rates are more likely to drop out of high school themselves.[11] Finally, the academic orientation of teens' friends also matters: Teens who believe it is important that their friends are engaged in school, do well in school, and are involved in positive activities are more likely to go to college, while those who report having at least one friend who had dropped out of school are less likely to go on to higher education.[83]

The School and Community Context

As would be expected, the school itself seems to be a factor in teens' educational adjustment. Adolescents who feel their teachers are supportive, interested, and have high hopes for their educational future are more engaged in school, have higher hopes for the future, and are more likely to be motivated to succeed in school.[61, 70, 67] Teachers' background training in a field or content area, particularly in math, appears to be related to the successful performance of students in that subject.[26]

Furthermore, the academic achievement level of a student's school peers seems to play a role in how well teens adjust to the school environment. For instance, students who are placed in a college preparatory or academic track at school (and likely surrounded by higher-achieving peers) have been found to do better academically and to be more likely to graduate from high school and attend college than students placed in a general or vocational track.[9, 55] However, while being surrounded by higher achieving-peers seems to bode well for students' academic achievement, it may have more negative implications for their academic self-concept. Research suggests that students in schools with lower average levels of school achievement report better academic self-concepts, and higher hopes for the future educationally than similar students surrounded by higher achieving classmates (the "big fish in a little pond" effect).[52, 49] While this may mean that adolescents do not think as highly of their own academic abilities when they are surrounded by many bright students, the finding must be considered in combination with the many other indicators of academic success.

Another factor that may play a role in adolescents' educational experience is school culture. Young people who attend schools that emphasize more adaptive goals for learning (for example, the goal of mastering a task rather than that of performing well on a test) are more motivated to succeed educationally and more engaged in school.[5, 6]

Finally, adolescents who live in schools and neighborhoods with higher average income levels have higher educational expectations, perform better academically, and complete more years of school.[72, 10, 33, 49] However, regardless of income, adolescents who move frequently between households are more likely to drop out of high school than their more rooted peers.[36]

More research is needed to understand the effects on adolescents of such education reforms and policies as school choice, standards, and uniforms. Few of the studies that have been done on these issues meet Child Trends' rigorous research criteria for inclusion, so the effects of such programs and policies cannot be reported in this brief.

Successful Programs

Several types of programs have been found to play a positive role in teens' academic self-concept, school engagement, achievement motivation, and educational expectations. Mentoring programs seem to offer the greatest potential for positively influencing a number of factors related to teens' adjustment to school. Such programs have been found to increase school engagement and, to a lesser extent, levels of academic self-concept and academic achievement.[57, 80]

Similarly, several kinds of programs have been found to boost adolescents' educational achievement and attainment. High-quality early childhood programs have been effective in improving academic attainment, but the effects on cognitive outcomes tend to fade over time.[7] Youth development programs that focus on academics, involve parents, and include social support have been effective in boosting adolescents' likelihood of completing high school,[32] but their effectiveness varies by program, by outcome, and by level and quality of implementation.[29, 32, 34, 62, 75] Also, high-quality mentoring programs with intensive case management by program staff, and mentors who are dedicated to establishing long-term relationships with teens, have been effective in raising achievement and educational attainment in teens.[80, 15]

Implications for Programs and Policies

Given the link between adolescents' success in school and their abilities to do well as adults, policy makers and practitioners alike are wise to focus on teens' educational performance. Based on our review of studies on educational adjustment, achievement, and attainment in teens, Child Trends sees a number of implications for the development of educational programs. Some of these implications relate directly to the needs of young people themselves. Specifically, program staff, families, and communities are encouraged to:

- Develop relationships with students to lend support and encouragement, communicate their beliefs in young people's ability to achieve academically, and increase teens' interest in and motivation toward school.
- Encourage teens to take academic-track courses. Research on tracking tells us that, on average, students who are in classes with high-achieving peers achieve more, even after taking into account base achievement levels. Conversely, students who are in nonacademic tracks, on average, seem to achieve at lower levels than those in academic tracks, after taking into account base achievement levels.
- Encourage teens to participate in extracurricular activities, since, on average, this participation is related to positive adjustment, better academic performance, and successful completion of school. Adolescents' choices about how they spend their time out of school are related to how they do in school.

What Works?

The *What Works* table, based on a review of more than 300 studies on adolescents' educational adjustment, achievement, and attainment, identifies which programs and approaches are likely to succeed in promoting these attributes. The headings on the left of the table identify the areas targeted for intervention:

- The "What Works" column describes programs in this area that have been found to be effective through experimental evaluations.
- The "What Doesn't Work" column lists interventions or activities that have been tried and proven ineffective with experimental evaluations.
- The "Mixed Reviews" column highlights elements that have been shown, through experimental evaluations, to be effective in some, but not all, programs or for some groups of adolescents but not all teens. Where there are empty spaces in the table, it means that little evidence has been found for or against programs in that particular area.
- Finally, the "Best Bets" column describes promising findings from research studies that take account of other factors related to education, but that have not been tested with experimental designs. It also includes results from quasi-experimental studies, and wisdom from practitioners working in the field.

For a more detailed version of this table, with links to research and program descriptions, consult Child Trends' Web site at www.childtrends.org.

Summary Table: Review of the Research Literature and Implications for Targeted Programs and Activities to Promote Educational Adjustment among Adolescents.

(This is an abridged version of a table available at http://www.childtrends.org/youthdevelopment_intro.asp. The longer table links to research and program descriptions.)

	Experimental Research Studies			Non-Experimental Research Studies
AREAS FOR TARGETED INTERVENTION ACTIVITIES	WHAT WORKS	WHAT DOESN'T WORK	MIXED REVIEWS	"BEST BETS"
Academic indicators of educational adjustment **(Academic achievement, high school completion, post-secondary school attendance and completion)**	-Mentoring programs [80] -High quality early childhood program participation [12, 15, 28, 71, 76] -Smaller class sizes in early elementary school years (13-17 students/class) [69]		-Youth development programs with components of academic supports along with social and health-promotion programming [3, 29, 32, 34, 62, 75] -Vocational programs and career academies [29, 43] -Voucher programs [39, 64]	*Individual Level* - Promote academic achievement beginning in the elementary school years and decrease grade retention - Encourage adolescents to take classes in the academic and college prep tracks - Promote school engagement, academic self-concept, global self-esteem, and educational expectations in adolescents - Encourage participation in extracurricular activities - Discourage working long hours (more than 20 hours per week), or encourage teens to work during the summer months - Discourage drug use, early fertility and parenthood - Discourage aggressive and other problem behavior *Peers* - Encourage adolescents to befriend high-achieving youth who aspire to graduate from high school *Family Level* - Encourage parents to become involved in their adolescents' lives and education by communicating directly and monitoring their activities - Encourage parents to communicate their high expectations to their adolescent children - Help low-income parents identify and pursue jobs or programs that are effective in decreasing poverty and improving family income and education - Promote healthy marriages between parents *School/Neighborhood Level* - Encourage adoption of practices used by more effective schools (more fluid tracking system, cooperative/communitarian school climate, etc.) - Encourage secondary school teachers to have content-specific training or certification, especially in the subject of math - Discourage multiple moves between neighborhoods/schools throughout childhood and especially during adolescence - Establish residence during early childhood in a low-poverty neighborhood with a low percentage of students who drop out of high school *Program Level* - Service learning programs - Tutoring programs
Social psychological indicators of educational adjustment **(Academic self-concept, achievement motivation, school engagement, educational expectations)**	- Cooperative learning strategies [57] - Career academies (or small learning communities) [43] - Youth employment programs [22] - Youth development programs aimed at fostering academic and social competence among disadvantaged high school students [32, 62, 75]		- Mentoring programs [2, 15, 44, 57, 73]	*Individual Level* - Promote increased academic achievement, starting early and continuing through adolescence - Discourage adolescents' extensive employment during school-year - Promote increased academic self-concept - Promote feelings of school belonging *Family Level* - Promote parental involvement in and high expectations for adolescents' education - Promote use of authoritative, limit-setting parenting - Help low-income parents identify and pursue jobs or programs that are effective in decreasing poverty and improving family income and education - Promote healthy marriages between parents *Peer Level* - Promote increased educational adjustment and functioning among adolescents' peers *School Level* - Increase adolescents' feelings of teachers' support and high expectations for them and teachers' emphasis on mutual respect between students in their classrooms - Pursue individualized attention for students with learning disabilities *Program Level* - Counseling programs - Social development programs - Service learning programs

- Discourage teens from working more than 20 hours a week during the school year, as this is related to lower average levels of academic achievement and educational attainment.
- Work to keep teens from taking part in risky behaviors and activities. Adolescents who avoid such activities, on average, have higher levels of educational adjustment, while those who are rebellious and aggressive, use drugs or alcohol, are involved in delinquent or sexually risky behaviors, or get pregnant or have children early are less likely to graduate from high school.
- Provide opportunities where teens can develop positive relationships with friends. Peers can affect young people in negative or positive ways, depending on their academic and behavioral orientation. Associating with high-achieving friends who have positive attitudes toward school and high aspirations appears to boost students' educational adjustment and their likelihood of graduating from high school.

Other implications from research relate more directly to parents and how they can help to boost their adolescents' academic development. For example, communities are encouraged to:

- Help parents identify and pursue education and training programs and better-paying employment opportunities for themselves. Teens whose parents have higher incomes and more education are better adjusted to school and do better academically, on average, than adolescents from lower-income families and whose parents have less education.
- Learn more about how to strengthen the marriages of teens' parents and how to provide supportive services for single-parent families. The structure of a teen's family has implications for his or her academic achievement and educational attainment. Adolescents who are raised by both biological parents are better adjusted educationally and achieve and attain more, on average, than their peers from single-parent families. Also, programs that address the factors that may play a role in lower achievement among teens from single-parent families may have positive implications for all teens, as well. (Examples of these factors are less parental time or supervision, less financial support, or poorer parental mental health.)
- Involve parents in their children's lives. The quality of teens' relationships with their parents has real bearing on teens' educational success. Adolescents whose parents are more involved in their lives are better adjusted to school, on average, than those whose parents are less involved. Specifically, teens whose parents exhibit interest in their well-being and have high expectations for them in school have better average levels of school engagement, achievement, and attainment than their peers.

Finally, findings from research have more direct implications for programs. For example, communities may need and want to:

- Reach out to young children. One of the clearest predictors of adolescents' educational performance is their scholastic and academic performance at younger ages. Preschool and elementary school-age programs can help prevent problems and promote positive outcomes in adolescence.
- Target at-risk teens (based on their ability, socioeconomic status, previous achievements, grade retention history, race, ethnicity, and gender, as well as on the neighborhood in which they live and their school background) with effective programs to boost their academic performance.
- Support educational policies that enhance teens' positive educational development. As the effects of policies on teens' educational success during secondary school become clearer, program staff can support those that conclusively improve teens' chances in school. More and better research is needed to understand which components of education reform – standards-based reform, school uniforms, school size, class size, and school choice, for example – positively affect teens.

This *Research Brief* summarizes a longer report, *Background for Community-Level Work on Educational Adjustment in Adolescence: Reviewing the Literature on Contributing Factors* (2001, Child Trends: Washington, D.C.), by Zakia Redd, M.P.P., Jennifer Brooks, Ph.D., and Ayelish M. McGarvey, which was prepared for the John S. and James L. Knight Foundation. Kristin Anderson Moore, Ph.D., is the Principal Investigator and Jonathan Zaff, Ph.D., is the Project Director. The brief was prepared by Anne Bridgman and was edited by Amber Moore, Harriet J. Scarupa,

Kristin Moore, and the study's authors. For more information on the report, call the Child Trends' publications office, 202-362-5580. Publications may also be ordered from Child Trends' Web site, www.childtrends.org.

Child Trends, founded in 1979, is an independent, nonpartisan research center dedicated to improving the lives of children and their families by conducting research and providing science-based information to the public and decision-makers. For additional information on Child Trends, including a complete set of available *Research Briefs*, please visit our Web site.

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